

REMARKS

Claims 1, 3, and 5-11 are now pending in the application. Claims The Examiner is respectfully requested to reconsider and withdraw the rejections in view of the amendments and remarks contained herein.

CLAIM OBJECTIONS

Claim 1 stands objected to based on informalities. Claim 1 is amended herein to revise the noted antecedent basis. Reconsideration and withdrawal of the objection are respectfully requested.

REJECTION UNDER 35 U.S.C. § 103

Claims 1, 3, and 5-9 stand rejected under 35 U.S.C. § 103(a) based on Akimoto et al. (U.S. Pat. No. 6,856,308 B2) and Oka et al. (U.S. Pat. No. 4,600,200). This rejection is respectfully traversed.

Claim 1 recites a display driver for driving data lines of an electro optic device based on display data. The display driver includes a display data random access memory, a display address decoder, a display column address decoder, a plurality of read-out bit lines, a scroll bus, a shift register, a line latch, a plurality of data latches, and a driving circuit. The display data random access memory includes a plurality of word lines, a plurality of column lines, and a plurality of memory cells each storing display data of one pixel. The display address decoder selects a word line of the display data random access memory based on a display address. The display column address decoder selects a column line of the display data random access memory

based on a display column address. The plurality of read-out bit lines each commonly coupled to a memory cell group specified by a corresponding column line. The scroll bus is coupled to the plurality of read-out bit lines. The shift register outputs a shift output shifted based on a given shift clock, the shift register including a plurality of shift register latches. The line latch loads display data that are loaded in the plurality of data latches in one horizontal scan cycle. The plurality of data latches, each of which corresponds to one of the data lines of the electro optic device, loads display data on the scroll bus, each data latch being connected to the line latch and to a shift register latch of the plurality of shift register latches. The driving circuit drives the data lines based on the display data loaded in the plurality of data latches. Display data of one pixel is read out from a memory cell specified by a word line selected by the display address decoder and a column line selected by the display column address decoder. The data is output to the scroll bus via the read-out bit line coupled to the memory cell, the data on the scroll bus being loaded in each of the plurality of data latches, the display data being shifted from the scroll bus for storing in the plurality of data latches. Each of the plurality of data latches loads display data on the scroll bus based on the shift output of each stage of the shift register. Akimoto et al. and Oka et al. fail to teach or suggest the display driver recited by Claim 1.

In Akimoto et al., the contents of the memory cell are read to a bus 18 through TCON 14, while the bus 18 is connected to the main processing unit (MPU) 15, I/O circuit 16 and TCON 14. Akimoto et al., Col. 6, Lines 45-46; and Col. 4, Lines 21-24. The bus 18 does not supply data to display unit 50.

Akimoto et al., however, is silent as to the scroll bus coupled to the plurality of read-out bit lines and the shift register recited by Claim 1. Akimoto et al. is silent as to the plurality of data latches, each of which corresponds to one of the data lines of the electro optic device, loading display data on the scroll bus, each data latch being connected to the line latch and to the shift register latch of the plurality of shift register latches, as recited by Claim 1. Akimoto et al. is further silent as to the data being output to the scroll bus via the read-out bit line coupled to the memory cell, the data on the scroll bus being loaded in each of the plurality of data latches, and the display data being shifted from the scroll bus for storing in the plurality of data latches. Akimoto et al. is further silent as to each of the plurality of data latches loading display data on the scroll bus based on the shift output of each stage of the shift register.

With respect to Oka, et al., a three-dimensional image display system wherein stored video information is scrolled in an oblique direction with respect to a perspective view. Oka, et al., Abstract. Like Akimoto et al., Oka, et al. is silent as to the scroll bus coupled to the plurality of read-out bit lines and the shift register recited by Claim 1. Oka, et al. is silent as to the plurality of data latches, each of which corresponds to one of the data lines of the electro optic device, loading display data on the scroll bus, each data latch being connected to the line latch and to the shift register latch of the plurality of shift register latches, as recited by Claim 1. Oka, et al. is further silent as to the data being output to the scroll bus via the read-out bit line coupled to the memory cell, the data on the scroll bus being loaded in each of the plurality of data latches, and the display data being shifted from the scroll bus for storing in the plurality of data latches.

Oka, et al. is further silent as to each of the plurality of data latches loading display data on the scroll bus based on the shift output of each stage of the shift register.

For these reasons, Akimoto et al. and Oka, et al. fail to teach or suggest the display driver recited by Claim 1. With regard to Claims 3 and 5-7, Applicant notes that each depends either directly or indirectly from Claim 1 which defines over Akimoto et al. and Oka, et al. as discussed in detail above. Therefore, Claims 3 and 5-7 also define over the references. Reconsideration and withdrawal of the rejections are respectfully requested.

Limitations similar to those discussed above with respect to Claim 1 are also recited by Claim 8. For at least the above reasons, Akimoto et al. and Oka et al. likewise fail to teach or suggest the display driving method recited by Claim 8. Claim 9 depends from Claim 8, which defines over Akimoto et al. and Oka, et al. as discussed in detail above. Therefore, Claim 9 likewise defines over the references. Reconsideration and withdrawal of the rejections are respectfully requested.

New Claims 10 and 11 depend from Claims 1 and 8, respectively, which are define over the references as discussed above. Thus, Claims 10 and 11 likewise define over the references and are believed to be in condition for allowance.

CONCLUSION

It is believed that all of the stated grounds of rejection have been properly traversed, accommodated, or rendered moot. Applicant therefore respectfully requests that the Examiner reconsider and withdraw all presently outstanding rejections. It is believed that a full and complete response has been made to the outstanding Office Action and the present application is in condition for allowance. Thus, prompt and favorable consideration of this amendment is respectfully requested. If the Examiner believes that personal communication will expedite prosecution of this application, the Examiner is invited to telephone the undersigned at (248) 641-1600.

Respectfully submitted,

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By: _____

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